

## Probing Higgs boson properties with boosted objects at the CMS experiment

*Sunday, 29 August 2021 16:40 (20 minutes)*

Advances in boosted jet tagging techniques, particularly with novel machine learning approaches, have led to significant performance improvements in the reconstruction and identification of the hadronic decays of the Higgs boson and provided additional handles to probe the Higgs boson properties at the LHC. In this talk, I will present recent progress in machine learning-based methods for boosted Higgs boson reconstruction and discuss their applications in recent CMS searches, e.g., the  $H \rightarrow c\bar{c}$  decay and the VBF Higgs pair production.

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